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ABSTRACT

This study examined preservice teachers' views at the beginning and end of a Professional Development School (PDS) collaboration project in terms of their stages of concern about teaching, teacher efficacy, understanding and implementation of integrated curriculum, and implementation of technology in instruction. The study also compared traditionally prepared and PDS-prepared student teachers' levels of preparedness for the entry year. The project involved immersing 15 preservice teachers in two different PDS environments during the semester before student teaching. Students took classes designed to develop reflective practitioners who were aware of theory-practice links. The onsite field experience provided a context for reflecting upon and making sense of the site-based experiences. Data came from pretest/posttest surveys that included a self-efficacy questionnaire, a student teaching questionnaire, and a stages of concern scale. Researchers also collected journal responses and lesson plans. Data analysis indicated that students who had guided internship experiences with trained mentors, focused on-site classes, and an emphasis on reflection felt and were better equipped to enter the teaching profession. They were more efficacious and had developed a level of comfort that allowed them to focus on concerns beyond their own personal survival. (Contains 17 references.) (SM)

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The Impact of A PDS Internship/Student Teaching Program on the Self-Efficacy, Stages of Concern and Role Perceptions of Preservice Teachers: The Evaluation of A Goals 2000 Project

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Since the publication of *A Nation At Risk* (1983), a plethora of school reform initiatives have been implemented across the United States. These have focused on virtually every aspect of schools and teaching. Yet, only recently have reform efforts begun to focus on the most critical factor in the development of students prepared to meet the Twenty First Century-the teacher. As Darling-Hammond (1996) states: "If a caring, qualified teacher for every child is the most important ingredient in education reform, then it should no longer be the factor most frequently overlooked" (p. 194). In an address made to the Summit County Educational Service Center, Darling-Hammond (1998) also said that if the intent is to improve student learning, the best gains are achieved by money spent on professional development.

Over the next decade this country will hire more than 2,000,000 teachers. If the present system continues, however, these novices will experience: (a) inadequate teacher education programs, (b) haphazard hiring and induction programs, (c) a 30% rate of attrition, and (d) a woeful lack of high-quality professional development experiences. At the same time, a critical need exists for well-qualified teachers with (a) strong subject matter knowledge expertise, (b) skill in using a range of teaching strategies and technologies, (c) effectiveness in working with diverse student populations, (d) skill in working with parents and other teachers, and (e) expertise in the area of assessment (Darling-Hammond, 1996).

To remedy this situation, the National Commission on Teaching and America's Future (1996) recommends that states, districts and education schools (a) organize standards-based teaching and professional development, (b) institute year-long internships in professional development school settings, (c) create and fund beginning teacher mentoring programs that incorporate evaluation, (d) create stable, high quality on-going sources of professional development, and (e) organize new sources of professional development, such as school/university partnerships.

In an effort to enhance the quality of the teacher preparation program at The University of Akron, in 1996 the authors embarked upon the development of a field-based

school/university partnership that incorporated a Professional Development School model. In keeping with the Commission's recommendations, the project involved preservice teachers in a year-long internship and created and funded a teacher mentoring program.

This project, now in its third year, has as one of its objectives the development of a collaborative model designed to enhance the teacher preparation of 15 preservice (hereinafter referred to as intern) teachers. Interns spend two full days a week for 16 weeks in two different Professional Development Schools during the semester before student teaching. They work with two different teachers during that time and go on to student teach with each of the two teachers. Students participate in four classes, Professional Issues in Education, Integrated Curriculum, Field Experience and Technology in the Classroom, which are delivered at the field site.

The focus of the classes was upon the development of reflective practitioners (Zeichner, 1980) who were clearly aware of the links between theory and practice. The on-site internship/field experience sought to provide a context wherein students of teaching could reflect upon and make sense of their site-based experiences. The project described herein attempted to help students "cultivate images of the possible and desirable" (Feiman-Nemser, 1983) in terms of innovative classroom instruction, at the same time it made field experience the center of student learning.

The key players in this collaboration included the interns, teachers and principals at two elementary schools in the Barberton City School District, and three in the Green Local School District, Ohio, as well as the authors, who are two university professors, and the field site coordinators from The University of Akron. The study described herein represents one component of the grant evaluation process.

OBJECTIVES: The objectives of this presentation are to:

1. Compare and contrast preservice intern/student teachers' views at beginning and end of a professional development school collaboration project in terms of their (a) stages of

concern about teaching, (b) teacher efficacy, (c) understanding and implementation of integrated curriculum, and (d) implementation of technology into instruction.

2. Compare traditionally prepared and professional development school student teachers' levels of preparedness for the entry-year in three areas: (a) understanding of integrated curriculum, (b) understanding of the appropriate use of technology in instruction, and (c) understanding of the importance of relevant, engaging instruction.

3. Examine the implications of study results for preservice teacher education in general and Professional Development Schools in particular.

PERSPECTIVES: The literature is rife with descriptions of school/university collaborations in the form of Professional Development Schools. While such descriptions vary, these schools typically converge around four goals: (a) the improvement of student learning, (b) the preparation of educators, (c) the professional development of educators, and (d) research and inquiry into improving practice (Teitel, 1996). According to the Holmes Group (1986, p. 56), Professional Development Schools are places where teachers, administrators, and university faculty work together through "(a) mutual deliberation on problems of student learning and their possible solutions, (b) shared teaching in the university and schools, (c) collaborative research on problems of educational practice, and (d) cooperative supervision of prospective teachers and administrators."

Within the Professional Development School model, much interest has been focused upon the improved preparation of preservice teachers through internship and student teaching experiences. One key goal of the present collaboration was to improve preservice teacher training by immersing 15 preservice teachers in the PDS environment.

A number of researchers including Stallings and Kowalski (1990) and Winitzky, Stoddard and O'Keefe (1992), have described professional development school models wherein promising preservice preparation has occurred. Ruscoe et al (1989) found that teachers in Professional Development Schools felt a high degree of efficacy when

empowered in a variety of decision-making areas. Teitel (1992) found that "assigning clusters of PDS interns to work with a group of teachers expands professional mentors for each student teacher and reinforces the interdependence that grows among student teachers" (p. 79). Yerian and Grossman (1993) compared student teachers trained in a traditional setting with those in a PDS. PDS student teachers felt better prepared for teaching and were more positive about their supervisor's feedback. Most importantly, they credited their preservice program with enabling them to integrate theory and practice within the school environment.

Some evidence exists that the PDS model can provide a context supportive of educational innovation. Roth, Ligett et al (1993) found that the PDS context provided support for innovative instructional methods in mathematics teaching, thereby providing support reform in teaching and learning, as well as for collaboration between faculty and K-12 teachers.

Design and Analysis: In an attempt to assess both the quantitative and qualitative aspects of this project a mixed method research design was used (Newman & Benz, 1998). This design allowed us to more fully explore the wide range of possible data sources, in an attempt to blend the richness of the context with the more objective survey responses. In Campbell and Stanley (1963) terms, the it can be represented as a Pretest- treatment-posttest-posttest (O x O O) longitudinal design, in which the participants were surveyed at three different points over the course of a year for the quantitative analyses. One the Student Teaching Questionnaire, which had a comparison group, the design was O x O. In addition, journal responses and lesson plans were collected weekly during the internship phase, thematic units were evaluated twice during the year, and an attempt was made to video tape the interns/student teachers in each of their four placement to assess growth and areas for improvement.

Descriptive, inferential and qualitative analyses were run. The descriptive and inferential analyses were based on participant responses to the Self-Efficacy Questionnaire

and the C-BAM Stages of Concern scale, the Intern Questionnaire and a Student Teaching Questionnaire. Qualitative analyses were based on the multiple responses in the intern/student teacher journals, focusing on those that could be identified as indicators of changes in Stages of Concern, as well as the responses to the repeated prompt, "What is the role of the teacher?" In addition, an interview was conducted with a site coordinator who works with the program as well as traditional student teachers.

Findings: A point bi-serial correlation was run between dichotomous (one if it came from time one, o otherwise, etc.) and continuous variables to assess changes in interns' self-efficacy. Gains in self-efficacy for the cohort groups were consistent from the pre-internship stage (when interns were first brought into the project) to the end of student teaching. The original (1996-97) intern cohort group consisted of very high achieving students who were carefully selected to get the project off to a solid start. The mean of their self-efficacy scores at the inception of the project was 128.85 (see Table 1). They increased to 134.3 at mid year and 136.1 by the end of student teaching. This was significant at the alpha = 0.10 level, which was selected because of the exploratory nature of the study and because of the small N size. For a one-tailed test, a t of approximately 1.3 is needed for significance and a t = 1.7 is needed for a two-tailed test. The calculated t for this analysis was 1.5 as shown in Table 1. Since gains were predicted, a one tail test was used.

The second cohort more closely resembled the typical student in our teacher education program and the mean of their self-efficacy scores changed from 119 at the beginning, to 124.5 by mid-year and 131.43 at the end of student teaching (see Table 1). This was also significant at the alpha = 0.10 level for a one tailed test (t = 2.89) as shown in Table 1.

It is interesting to note from their journal entries that the first group started off confident in their abilities to make a difference when confronted with some of the realities and frustrations of teaching, they began to falter in their belief that they could overcome

some of the factors beyond their control in helping their students be successful. However, by the end of student teaching they again showed an increase in their efficacy. The second cohort group, while starting out less efficacious, also made steady gains and ended the year not much different than their predecessors in their self-efficacy scores.

Ideally these scores would have been compared to a control group of traditional student teachers, but our attempts to gain cooperation for this has meet with little success. The typical student teachers have not responded to requests at meetings, to small inducements (bribes) like key chains, planners, magnets, etc., and now we are attempting to involve their student teaching university supervisors in distributing and collecting the Self-Efficacy and Stages of Concern Questionnaires.

According to Hall & Hord (1984), a program or process that is new to an individual is considered an innovation. For this study, teaching itself was considered to be the program or process that was new to these novice teachers. One diagnostic dimension of the CBAM, the Stages of Concern component, was used to assess these interns' concerns about their initiation into the world of teaching. This dimension of the CBAM focuses on the concerns of individuals as they are involved in change. The Stages of Concern about the Innovation scale describes seven kinds of concerns that individuals have with varying intensities as they experience the change process. These range from "unrelated" concerns (Stage 0 = Awareness) to early concerns about the "self", (Stage 1 = Information, Stage 2 = Personal) to concerns about the "task" (Stage 3 = Management), and finally to concerns about impact (Stage 4 = Consequence, Stage 5 = Collaboration, Stage 6 = Refocusing) (Hord & Huling-Austin, 1986). The interns completed the Stages of Concern About the Innovation Questionnaire three times during the course of the study. In addition, intern journal responses were collected 12 times during the project and statements contained therein were analyzed qualitatively to determine the Stage of Concern, if any, exhibited.

Another interesting finding of the CBAM research is that teachers were more successful with change if they had ongoing coaching, or assistance, as they implemented

the innovation. The work we do in classes, as well as feedback from site coordinators, etc. certainly qualifies as coaching.

Data from this project reflected the expected change in Stages of Concern. The 1996-97 cohort data was only collected at the end of the student teaching experience, but the plot of the means of their responses indicate relatively strong concerns about gaining Information (Stage 1= 70%) and the Personal impact (Stage 2 = 74.28), but their concerns about Management (Stage 3= 38.8) and Consequences (Stage 4= 46.5%) seemed relatively low (see Table 2). Their most intense concerns were at the higher levels, Collaboration (Stage 5 = 86%) and Refocusing (Stage 6 = 85.5%), reflecting what one would expect of someone in the second or third year of an innovation. The researchers interpreted this as these participants growing as professionals far beyond what one would expect of a student teacher and beyond what one typically expects of an entry-year teacher.

The plot of the three sets of scores for the 1997-98 cohort were similar to that of the 1996-97 cohort, but the 1996-97 cohort scored higher on the upper stages of concerns (see Figure 1). In each stage, the 1997-98 students showed gains in the desired direction, reducing their Concerns from the beginning of internship (pretest) to the end of student teaching (ppost) in Stage 1- Information (from 80% to 71%,) on Stage 2- Personal (from 79.1% to 65.9%) and on Stage 3-Management (from 56.4% to 49.8%) as shown in Table 2. They also showed the desired increases in concerns regarding the impact of the intervention, in Stage 4-Consequences (from 40% to 41.9), on Stage 5-Collaboration (from 61.5% t 68.9), and Stage 6-Refocusing (from 42.2% to 50.1%) as shown in Table 2. For both groups the Stage 0-Awareness concern, stayed relatively high, 57.7% at the end of student teaching for the 1996-97 cohort, and a small increase from a pretest score 70.9% to a ppost score at the end of student teaching of 71.1 % for the 1997-98 cohort group (see Table 2). It is the researchers' belief that the cohort participants were able to move to the higher levels of concern more quickly because they were continually encouraged to collaborate and to reflect on the effects of their actions on their students.

Increased comfort and shifts in concerns about the implementation of the innovation were also evidenced and supported by analyzing the journal entries. This is the advantage of using both qualitative and quantitative measures to assess a variable of interest. Early entries focused mainly of learning more about their responsibilities in the program, time management and classroom control. Later entries, while still including concerns at the personal and management levels, also included more comments at the higher levels. Interns wrote about sharing materials with teachers, looking for strategies that share student progress most effectively with parents, helping other teachers with technology, trying new strategies to improve instructional effectiveness and seeing their role as finding new methods to increase student learning. While the interns never completely moved away from the awareness, informational, personal and management levels, as the project progressed, they did show more concerns with the consequences of their classroom actions, with collaboration and with refocusing to increase the positive impact of their efforts.

In an attempt to determine if a relationship exists between Stages of Concern and Self-Efficacy, a correlation was run between these two measures. As one might expect, no interpretable relationship was found. Self-efficacy and Stages of Concern are measures of different constructs, and one would not anticipate a relationship between gains over time on Stages of Concern and gains on Self Efficacy.

The Internship Questionnaire was the third survey that was administered three times during the internship/student teaching year. Questions on this instrument were collapsed into four broad categories: Self Efficacy, teaching Strategies, sense of being a part of the school Community , and Classroom Management. Analysis of these data indicated that for the 1996-97 cohort there were significant gains in the mean scores over time (at the $p = 0.05$ level) in their perceptions of being a part of the school community and in their perceptions of their classroom management skills (see Table 3). There were gains, but no significant change in their self-efficacy or in their perceptions of their teaching strategies scores as

shown in Table 3. The 1997-98 cohort group had significant gains on all four item clusters (see Table 3). Growth in each of these areas was part of the original project goals and was regarded as evidence of the effectiveness of the internship/mentoring program structure for preservice teachers.

A Student Teaching Questionnaire was developed in an attempt to identify differences between student teachers in a traditional preservice program and those in the internship program. Both cohort groups and control groups responded to a twenty item questionnaire examining their perceptions of readiness for student teaching (pretest) and their perceptions of success in student teaching on the same items (post test). After reviewing the questionnaire it seemed that there were some questions which had an apparent "right answer," which would more than likely elicit the politically correct response. Therefore, twelve items were selected to see if they could differentiate between the cohort and control groups.

A sign test was run on the gain scores from the beginning of student teaching to the end, to detect trends. The sign test for the 1996-97 group indicated that the cohort group had greater gains on only 4 of the 12 selected items (see Table 4). A possible explanation for this is that the maximum score for any item was a five, and the cohort group rated six items as four or higher on the pretest, and therefore had less room to demonstrate gains (a ceiling effect), then did the control group which scored four questions on the pretest as 4 or better. The 1997-98 cohort, gained more on nine of the twelve questions than did the control group of traditional student teachers as shown in Table 5. In both cases the trend was not significant.

In a final attempt to identify if differences exist between students who are part of the internship program and the traditional student teacher, an interview was conducted with one of the intern/student teaching site coordinators who has also been supervising student teachers for the past ten years. In her opinion, the interns emerge from the internship period better prepared to be a successful student teacher and to be a successful teacher. She

said she sees the interns as more comfortable in a classroom setting, having higher self-esteem and higher self-efficacy. In terms of planning instruction, she believes the interns are better able to find appropriate materials, do a better job sequencing instruction and have a wider range of instructional techniques and assessment strategies. The students who have been through the internship program are also more aware of the importance of modeling for students, and they incorporate this in their instruction. She also said they are usually better "kid watchers," and have better introductions and closings to their lessons and smoother transitions. Overall, she said the interns' thought processes related to teaching are more highly developed. In addition, this site coordinator indicated that a ripple effect has occurred in that she has learned many new things about planning and teaching which she has passed on to the student teachers not in the program. Finally, in talking about the impact of the program, she said she sees the internship as providing a needed transition between the theory of the university classes and the reality of classroom practice. Both are needed and students in the internship not only have the opportunity to marry the two, but they are also guided through a reflection process that helps them interpret what the see and do.

As final evidence of the qualitative difference in the students completing the internship/student teaching program, 100% have been offered jobs in education, and only two have decided not to enter a classroom. (One opened a teacher supply store, and the other left the field for a higher paying employment opportunity.) This high rate of employment is unusual in a job market where only about 20% of new graduates obtain teaching positions. From this the researchers have concluded that during the interview process, these new teachers convey a higher level of confidence and competence than do their peers who completed the more traditional teacher education programs.

Educational Implications: his research indicates that the students who have had the guided internship experience with trained mentors, focused on-site classes and an emphasis on reflection, feel and are better equipped to enter the teaching profession. They have

become more efficacious and have developed a level of comfort that allows them to focus on concerns beyond their own personal survival. In addition, this type of program has yielded improved abilities to plan and deliver instruction, a sense of being a contributing part of a school community and increased employment opportunities.

The frustration has been in being able to get a sufficient control group which will allow us to more clearly demonstrate the positive impact of this project, and the lack of well-crafted measures that will detect the differences we strongly believe exist.

Future plans included surveying the self-efficacy and stages of concerns of former program participants who are now in their entry-year or second year of teaching and comparing them to a control group of new teachers who have not had the benefit of this program. If we can demonstrate, as we believe we can, that this type of preservice program better prepares teachers to be more effective in the classroom, then there is strong justification for broadening this type of preservice educational opportunity.

References

Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research.* Chicago: Rand McNally.

Darling-Hammond, L. (1998, October). *Teaching and schooling for the 21st century: Professional development series.* Paper presented at Summit County Educational Service Center, Cuyahoga Falls, OH.

Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. *Phi Delta Kappan, 78* (3), 193-200.

Feiman-Nemser, S. (1983). Learning to teach. In L. S. Shulman & G. Sykes (Eds.), *Handbook of teaching and policy.* White Plains, NY: Longman.

Holmes Group (1986). *Tomorrow's teachers.* East Lansing, MI: Holmes Group.

Hord, S. M., & Huling-Austin, L. (1986). Effective curriculum implementation: Some promising new insights. *Elementary School Journal, 87,* 96-115.

National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform.* Washington, DC: Author.

National Commission on Teaching and America's Future (1996). *What matters most: Teaching for America's future.* New York: Author.

Newman, I., & Benz, C. (1998). *Qualitative/quantitative research methodology: Exploring the interactive continuum.* Carbondale, IL: Southern Illinois University Press.

Roth, K. J., Liggett, C., Derksen, J., Hasbah, C., Hoekwater, E., Masters, J., & Woodhams, P. (1993, February). *Many voices: Learning to teach social* studies (Series No. 86). East Lansing, MI: Michigan State University, Institute for Research on Teaching.

Ruscoe, G. C., Whitford, B. L., Egginton, W., & Esselman, M. (1989, March). *Quantitative and qualitative perspectives on teacher attitudes in professional development schools.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. ED 310 068)

Stallings, J. A., & Kowalski, T. (1990). Research on professional development schools. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 251-273). New York: Macmillan.

Teitel, L. (1996). Getting down to cases. *Contemporary Education, 67* (4), 200-205.

Teitel, L. (1992). The impact of professional development school partnerships on the preparation of teachers. *Teacher Education, 4* (2), 77-85.

Winitzky, N, Stoddard, T., & O'Keefe, P. (1992). Great expectations: Emergent professional development schools. *Journal of Teacher Education, 43* (1), 3-18.

Yerian, S. Y., & Grossman, P. L. (1993, April). Emerging themes on the effectiveness of teacher preparation through professional development schools. Paper presented at the annual meeting of the American Educational Research Association, Atlanta.

Zeichner, K. M. (1980). Myths and realities: Field-based experiences in preservice teacher education. *Journal of Teacher Education 31* (6), 45-46.

Table 1
Mean Self-Efficacy Scores at the Beginning of the Internship (Pre) at the End of Internship (Post) and the End of Student Teaching (PPost)

Cohort 1996-1997 Variable	Pre Mean	N=13 Pre SD	Post Mean	N=10 Post SD	PPost Mean	N=11 PPost SD	T Value	Significance
Self-Efficacy	128.85	10.09	134.30	9.08	136.1	13.38	1.5*	Signficant

Cohort 1997-1998 Variable	Pre Mean	N=14 Pre SD	Post Mean	N=14 Post SD	PPost Mean	N=14 PPost SD	T Value	Significance
Self-Efficacy	119.0	11.42	124.5	9.14	131.43	11.301.5	2.89*	Signficant

Note: *p<0.1

Table 2

Mean Scores on Stages of Concern from the Beginning of Internship (Pre) at the End of Internship (Post) to the End of Student Teaching (PPost)

Cohort 1996-1997 Stages of Concern	Pre	Post	N=11 PPost	Cohort 1997-1998 Pre	Post	N=14 PPost
Unrelated						
0-Awareness	-	-	57.73	70.86	68.86	71.07
Self						
1-Informational	-	-	70.09	80	70.14	71.07
2-Personal			74.28	79.14	64.21	65.93
Task						
3-Management	-	-	38.82	56.43	57.36	49.86
Impact						
4-Consequence	-	-	46.45	40.4	41.0	41.86
5-Collaboration	-	-	86.0	61.5	59.0	68.93
6-Refocusing	-	-	85.45	42.2	43.43	50.14

Note: For cohort 1996-1997, we have stages of concern for ppost only; we did not administer stages of concern for pre or post.

Table 3
Composite Scores from Internship Questionnaire on Selected Item Clusters from the Beginning of Internship (Pre) to the End of Student Teaching (PPost)

Cohort 1996-1997			N=12
Item Clusters	**Gain Score**	**Std Dev**	**Significance**
Self-Efficacy	1.0	1.65	Significant
Strategies	0.16	6.69	Significant
Community	14.0	6.0	Significant
Classroom Management	1.19	1.78	Significant

Cohort 1997-1998			N=14
Item Clusters	**Gain Score**	**Std Dev**	**Significance**
Self-Efficacy	1.71	1.7	Not Significant
Strategies	6.64	3.49	Not Significant
Community	5.85	2.21	Significant
Classroom Management	2.35	1.49	Significant

Note: $p<0.05$

Table 4

Sign Test of Gain Scores for the Student Teaching Questionnaire from the Beginning (Pre) to the End of Student Teaching (PPost)

Cohort 1996-1997 Item	N=11 Pre	N=12 Post	Gain Score	Control 1996-1997 Pre	Post	N=41 Gain Score	Cohort Greater Change in Desired Direction
Classroom Management	3.56	4.25	0.69	3.49	3.44	-0.5	+
Unit Development	4.54	4.75	0.21	3.9	4.66	0.76	+
Integrating Instruction	4.36	4.41	0.05	3.68	4.27	0.59	+
Actively Engage Kids in Work	4.0	4.83	0.83	4.17	4.34	0.17	+
Children as Decision-Makers in Their Own Learning	4.36	4.33	-0.03	4.27	4.12	-0.15	+
Begin with Teaching Activities, Then Plan Units	2.0	2.83	0.83	3.49	3.29	-0.2	-
School Work Should Actively Engage Kids in Learning	5.0	5.0	0	4.9	4.88	-0.2	+
Teacher Directed Lessons Are the Best Way to Teach	1.8	1.9	0.1	2.37	2.34	-0.03	-
Integrating Instruction Is Not Usually Possible in the Classroom	1.45	1.58	0.13	1.8	1.85	0.05	-
Basal Texts Tell Teachers What They Need to Teach	2.18	2.16	-0.2	2.76	2.56	-0.2	-
Students Need Opportunities to Work in Small, Self-Directed Groups	4.45	4.41	-0.4	4.39	4.51	0.12	+
Well-Written Teacher Plans for Each Lesson Increase Student Learning	3.91	4.08	0.17	3.93	4.17	0.24	+

Note: p=0.194

Table 5

Sign Test of Gain Scores for the Student Teaching Questionnaire from the Beginning (Pre) to the End of Student Teaching (PPost)

Cohort 1997-1998 Item	N=14 Pre	N=14 Post	Gain Score	Control 1997-1998 Pre	Post	N=45 Gain Score	Cohort Greater Change in Desired Direction
Classroom Management	3.43	4.0	0.57	3.49	3.49	0	+
Unit Development	4.0	4.29	0.29	4.24	4.44	0.2	+
Integrating Instruction	4.21	4.5	0.29	4.18	4.09	-0.9	+
Actively Engage Kids in Work	4.43	4.64	0.21	4.18	4.33	0.15	+
Children as Decision-Makers in Their Own Learning	3.86	4.0	0.14	3.76	4.02	0.26	+
Begin with Teaching Activities, Then Plan Units	2.79	2.64	-0.15	3.78	3.31	-0.47	-
School Work Should Actively Engage Kids in Learning	4.5	4.57	0.07	4.82	4.91	0.01	+
Teacher Directed Lessons Are the Best Way to Teach	2.21	2.07	-0.14	2.64	2.4	-0.24	-
Integrating Instruction Is Not Usually Possible in the Classroom	1.14	1.29	0.15	1.78	2.0	0.23	-
Basal Texts Tell Teachers What They Need to Teach	2.43	2.14	-0.29	2.84	2.67	-0.17	-
Students Need Opportunities to Work in Small, Self-Directed Groups	4.43	4.76	0.33	4.36	4.44	0.08	+
Well-Written Teacher Plans for Each Lesson Increase Student Learning	3.86	4.36	0.5	4.18	4.36	0.18	+

Note: p=0.194

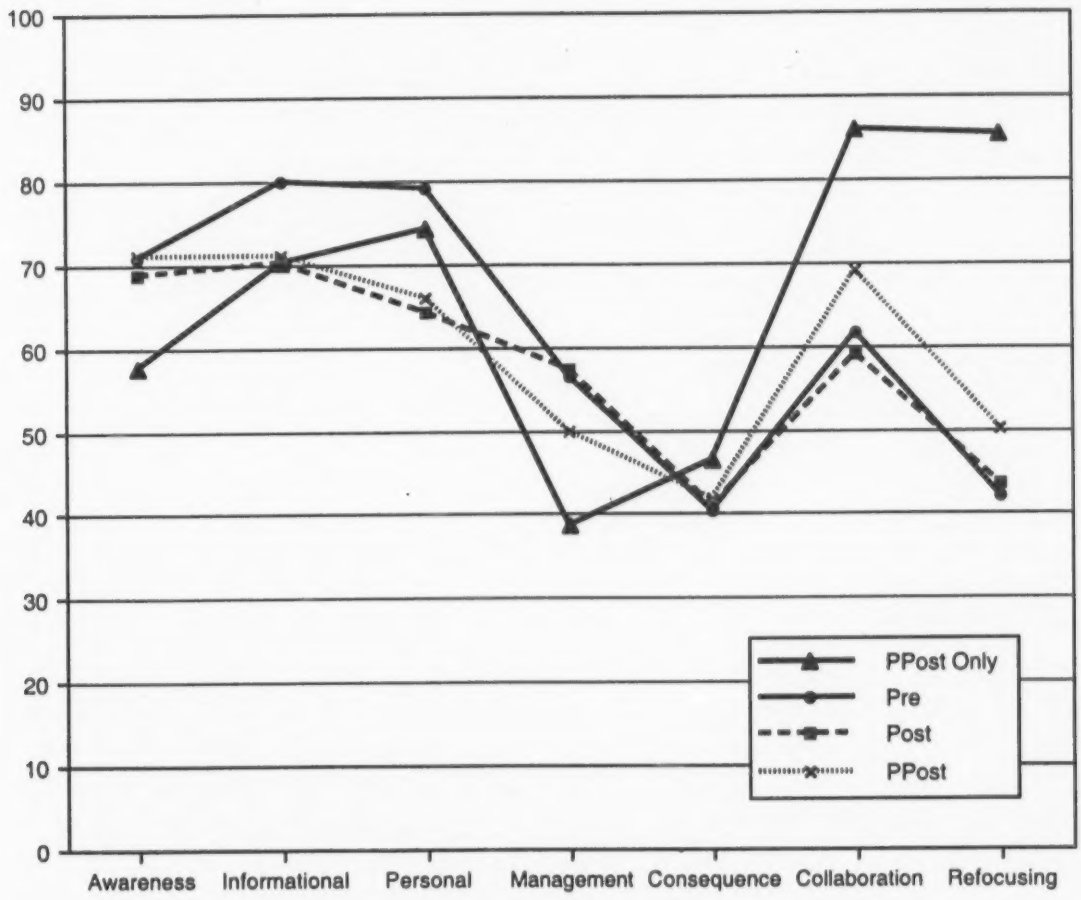

Figure 1. SoCQ Profile.